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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,144	04/15/2004	Jon Steinar Andreassen	979-068	8756

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SOFER & HAROUN, L.L.P.
317 Madison Avenue, Suite 910
New York, NY 10017

EXAMINER

KIANNI, KAVEH C

ART UNIT	PAPER NUMBER
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2883

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/826,144	Applicant(s) ANDREASSEN, JON STEINAR	
	Examiner Kianni C. Kaveh	Art Unit 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is ambiguous, since the limitation 'comprising at least one reflecting section called bragg grating' is not undefined as whether the optical means or the optical fiber comprise the reflection section. Correction is required.

Claim Objections

Claim 3 is objected to because of the following informalities: in the second line of claim the phrase 'are a' is misspelled and should be 'is a'. Appropriate correction is required.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, **optical means** must

be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quigley et al. (US 20040096614).

Regarding claim 1, Quigley teaches cable (shown in at least figures 1 and 23) comprising:
an outer protective layer 74 and optical means for monitoring temperature and strain (see parag. 0069-0070), said optical means being within said outer protective layer and having a first tube including at least a first optical fibre in order to monitor the temperature (shown in at least fig. 1, items 74 and 17, and see parag. 0069-0070), said first optical fibre being loose in said first tube 74 and comprising at least one reflecting section *called Bragg grating* (see parag. 0069-0070; note that 'called Bragg grating is not given patentable weight since a reflector can be called with various names); and at least a second optical fibre including at least one Bragg grating in order to monitor the strain (shown in at least fig. 23, items 1, 2, 120 and 122..N, see parag. 0162-0163), wherein in said cable said second optical fibre is outside said first tube (see at least fig. 3 and 23, item sensor(s) and protective tubes/layers each having a fiber sensor, and at least parag. 0106), said optical means further comprising means for tightening said second optical fibre (see parag. 0098).

However, Quigley does not explicitly state that the above protective layer is a protective Sheath. It is obvious/well known to those of ordinary skill in the art when the invention was made that protective tubing layer/wall for protecting inner cable(s)

is/known-as protective sheath, since such layer would facilitate identification selected ambient conditions (see 0018).

Regarding claims 2-14, Quigley further teaches wherein said second optical fibre is centrally located along the longitudinal axis of said cable (see at least fig. 21-22, item 70 being in center along axis of cable); wherein said first optical fibre has an excess length in said first tube (see at least parag. 0106, wherein the excess fiber being wrapped); wherein said first tube is stranded (shown ion at least fig. 3, item stranded/tubs); a stranded layer including a plurality of strands, one of said strands being said first tube (shown ion at least fig. 3, item stranded fiber tubs); wherein said first tube comprises a plurality of optical fibres(see at least parag. 0106); wherein said means for tightening said second optical fibre are a second tube separated from said first tube (shown in at least fig. 3, item tubes having fibers being separated from each other); wherein said second tube comprises a plurality of optical fibres (see at least parag. 0106); wherein said means for tightening said second optical fibre are a coating layer surrounding tightly said second optical fibre in order to form a tight buffered fibre(see parag. 0132); wherein at least one of said first or second optical fibre comprises a plurality of Bragg gratings disposed at different locations along the length of said first or second optical fibre, each of them corresponding to a monitoring spot (shown in at least fig. 23, item sensing/Brag-gratings for monitoring temp./strain); wherein said means for tightening said second optical fibre are surrounded by a protective jacket (see parag. 0132); wherein one of said strands is a strength member

(see at least parag. 0080, 0087 and 0093); wherein one of said strands is a conductor 70; wherein at least one of said first or second tube is made of metal (see at least parag. 0079).

Citation of Relevant Prior Art

Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In accordance with MPEP 707.05 the following references are pertinent in rejection of this application since they provide substantially the same information disclosure as this patent does. These references are:

US 6004639 A Quigley; Peter A. et al. teaches all the claims

Bohnert et al. 6563970 teaches at least claim 1

US 20030127587 A1 Udd, Eric et al.

These references are cited herein to show the relevance of the apparatus/methods taught within these references as prior art.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Cyrus Kianni whose telephone number is (571) 272-2417.

The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 6:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font, can be reached at (571) 272-2415.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

Art Unit: 2883

(703) 872-9306 (for formal communications intended for entry)

or:

Hand delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

KAVEH KIANNI
PRIMARY EXAMINER

February 21, 2006


